IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of Haworth, et al. Serial No. 09/206,458 Filed: May 20, 1998 For: Method of Extracting Antioxidants From Labiatae Species and the Extract Products Thereof	Group Art Unit 1617 Examiner: Edward J. Webman

Mail Stop Non-Fee Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

DECLARATION UNDER RULE 131(a)

Dear Sir:

John Greaves and Friedhelm Brinkhaus, inventors in the above-identified patent application, declare as follows:

1. That sometime prior to March 10, 1997, we and James Haworth conceived of a method for using tetrafluoroethane (TFE) and one or more co-solvents to improve the yield of extracts of plant materials.

2. That the process conceived by us included adding TFE and at least one co-solvent to a vessel containing plant material to be extracted. The TFE and co-solvent(s) would come into contact with the plant material and organic components of the plant material would be dissolved into the solvents. The TFE would be allowed to evaporate off, leaving the organic component in the liquid co-solvent(s). The co-solvent(s) could then be removed using a heated gas or by distillation. The extract would be tested to determine yield of the organic component.

3. The initial experiments were conducted on or about March 18, 1997, in which TFE alone and TFE in combination with a percentage of the co-solvents acetone and butane were used to extract plant material of rosemary in an effort to establish that the novel process would work as conceived. The extracts produced were an oily liquid. The efficacy of the extracts was studied in oxygen bomb tests using poultry fat. The efficacy of the extracts made using the co-solvents exceeded the efficacy of the extracts made using TFE alone. These experiments are documented in pages 131 - 133 of Kemin Industries, Inc. Laboratory Notebook No. 123. Copies of these pages are attached to this Declaration.

4. That subsequent experiments were conducted in 1997 and early 1998 using various amounts and combinations of co-solvents, including acetone, butane, ethanol, and hexane to determine a preferred co-solvent or combination of co-solvents and the amount or the co-solvent(s) to be used.

5. That during this period in 1997 and early 1998, the extracts of rosemary derived from these experiments were tested for overall yield and antioxidant efficacy and compared against the yield and antioxidant efficacy of extracts of rosemary made using TFE alone. The antioxidant efficacy of the extracts made using the so-solvent(s) was uniformly higher than extracts made using TFE alone, and in some experiments the efficacy of the extract was six-fold that of the TFE-only extract. These experiments were documented on pages 134-135, and 145-152 of Book No. 123 and pages 83-94 of Book No. 139. Copies of these pages are attached to this Declaration.

6. That the process was used to extract a commercially acceptable antioxidant from rosemary that could be used to supplement or replace mixed tocopherols prior to April 8, 1998.

The declarants further state that the above statements were made with the knowledge that willful false statements and the like are punishable by fine and/or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that any such willful false statement may jeopardize the validity of this application or any patent resulting therefrom.

Date: 12/15/03

John A. Greaves

Date: 12/15/08

Friedhelm Brinkhaus